

Joshua I

My science project topic is, “does blowing into a bottle longer and harder affect how much air gets into it?”

My hypothesis is it will be the same no matter how long and hard I blow.

I used an 89-fluid ounce bottle, a 2-gallon bucket, a flexible straw, a towel, a permanent marker, and a stopwatch.

I went to the bathroom, filled up the bathtub, and began. My sister recorded the time took for each blow. On my normal breath, I took 11 seconds and 8 milliseconds and got air 2/3 of a way through. On my deep breath, I took 12 seconds and 51 milliseconds and made it 6/8 of a way through.

I learned that the harder and longer you blow, the more air can rush in.

My conclusion is that the harder and longer you blow *does* affect how much air will get in.

Wǒ De Kē Xué Yán Jiū Tí Mù Shì Liáng Yī
1. 我的科学研究题目是：量一
Liáng Zài Yī Gè Píng Zǐ Lǐ Chuī Qì De Dà Xiǎo Yǔ
量在一个瓶子里吹气的大小与
Shí Jiān De Cháng Duǎn Yǒu Shí Me Guān Xì
时间的长短有什么关系。

Wǒ De Jiǎ Shè Shì Wú Lùn Wǒ Zài Yī
2. 我的假设是：无论我在一个
Gè Píng Zǐ Lǐ Chuī Qì De Dà Xiǎo Yǔ Shí Jiān De
瓶子里吹气的大小与时间的
Cháng Duǎn Méi Guān Xì Tā De Jié Guǒ Shì Yī Yàng
长短没关系。它的结果是一样

De
的。

3. Wǒ Yòng De Cái Liào Shì 89 Liú Tǐ Àng
我用的材料是：89 流体盎

Sī De Píng Zǐ 2 Jiā Lún De Shuǐ Tǒng Xī Guǎn
司的瓶子，2 加仑的水桶，吸管，

Máo Jīn Yǒng Jiǔ Xíng De Bǐ Hé Jì Shí Qì
毛巾，永久性的笔，和计时器/

Mǎ Biǎo
码表。

4. Wǒ Qù Yù Shì Bǎ Yù Gāng Fàng Mǎn Le
我去浴室，把浴缸放满了

Shuǐ Kāi Shǐ Zuò Shí Yàn Měi Cì Wǒ Chuī Qì
水，开始做实验。每次我吹气，

Wǒ De Mèi Mèi Jì Lù Wǒ Chuī Qì De Shí Jiān
我的妹妹记录我吹气的时间。

Zài Wǒ Zhèng Cháng De Hū Xī Wǒ Yòng Le 11 Miǎo
在我正常的呼吸，我用了 11 秒

Yòu 8 Hǎo Miǎo Chuī Qì Píng Zǐ Jìn Rù Le 2/3
又 8 毫秒吹气，瓶子进入了 2/3

De Kōng Qì Wǒ Shēn Shēn Xī Le Yī Dà Kǒu Qì
的空气。我深深吸了一大口气，

Wǒ Huā Le 12 Miǎo Yòu 51 Háo Miǎo Chuī Qì
我花了 12 秒又 51 毫秒吹气，

Píng Zǐ Jìn Rù Le De Kōng Qì
瓶子进入了 $2/3$ 的空气。

5. Wǒ Xué Dào Le Zài Yī Gè Píng Zǐ Lǐ
5. 我学到了：在一个瓶子里

Chuī Qì Yuè Dà Yǔ Shí Jiān Yuè Cháng Píng Zǐ Jìn
吹气越大与时间越长，瓶子进

Rù De Kōng Qì Yuè Kuài
入的空气越快。

6. Wǒ De Jié Lùn Shì Zài Yī Gè Píng Zǐ
6. 我的结论是：在一个瓶子

Lǐ Chuī Qì Yuè Dà Xiǎo Yǔ Shí Jiān Yuè Cháng Duǎn
里吹气越大小与时间越长短，

Yǐng Xiǎng Duō Shǎo Kōng Qì Jìn Rù Píng Zǐ Lǐ Chuī
影响多少空气进入瓶子里。吹

Qì Yuè Dà Yǔ Shí Jiān Yuè Cháng Píng Zǐ Jìn Rù
气越大与时间越长，瓶子进入

De Kōng Qì Yuè Kuài Yuè Duō
的空气越快越多。